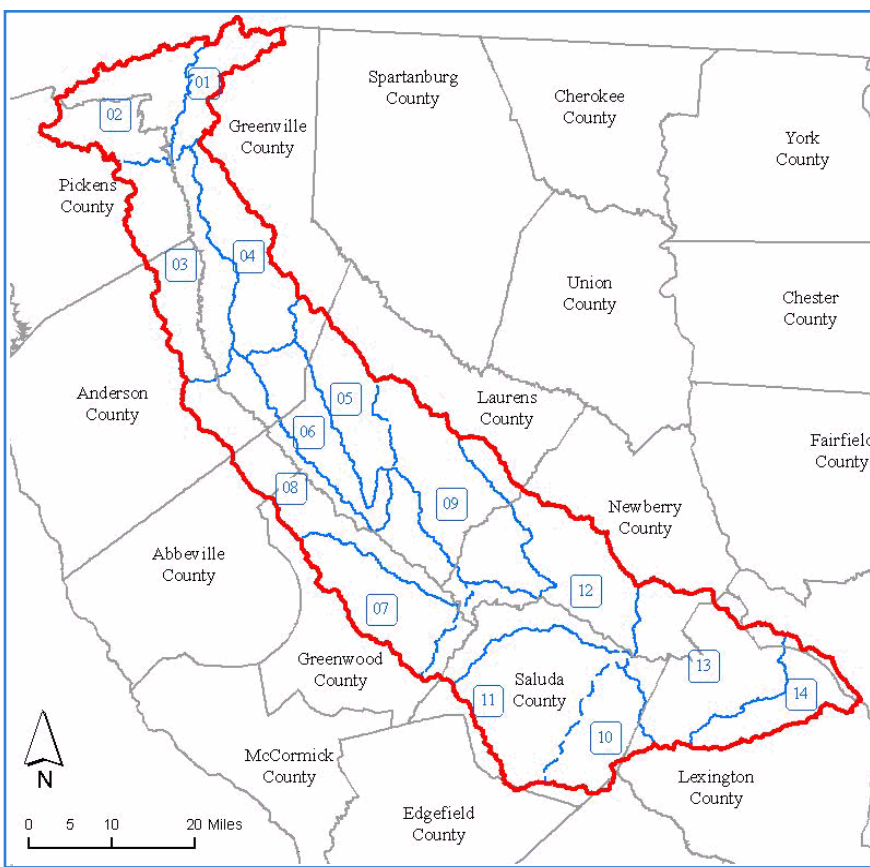


SALUDA Subbasin

August 31, 2007

An Assessment of the Saluda Subbasin

Hydrologic Unit Code (8 Digit): 03050109



WATERSHED (10-digit HUC)
(E.g., 01 = 0305010901)

- 01 North Saluda River
- 02 South Saluda River
- 03 Grove Creek-Saluda River
- 04 Upper Reedy River
- 05 Rabon Creek
- 06 Lower Reedy River
- 07 Ninety Six Creek
- 08 Lake Greenwood-Saluda River
- 09 Little River-Saluda River
- 10 Clouds Creek
- 11 Little Saluda River
- 12 Bush River-Saluda River
- 13 Lake Murray-Saluda River
- 14 Twelvemile Creek-Saluda River

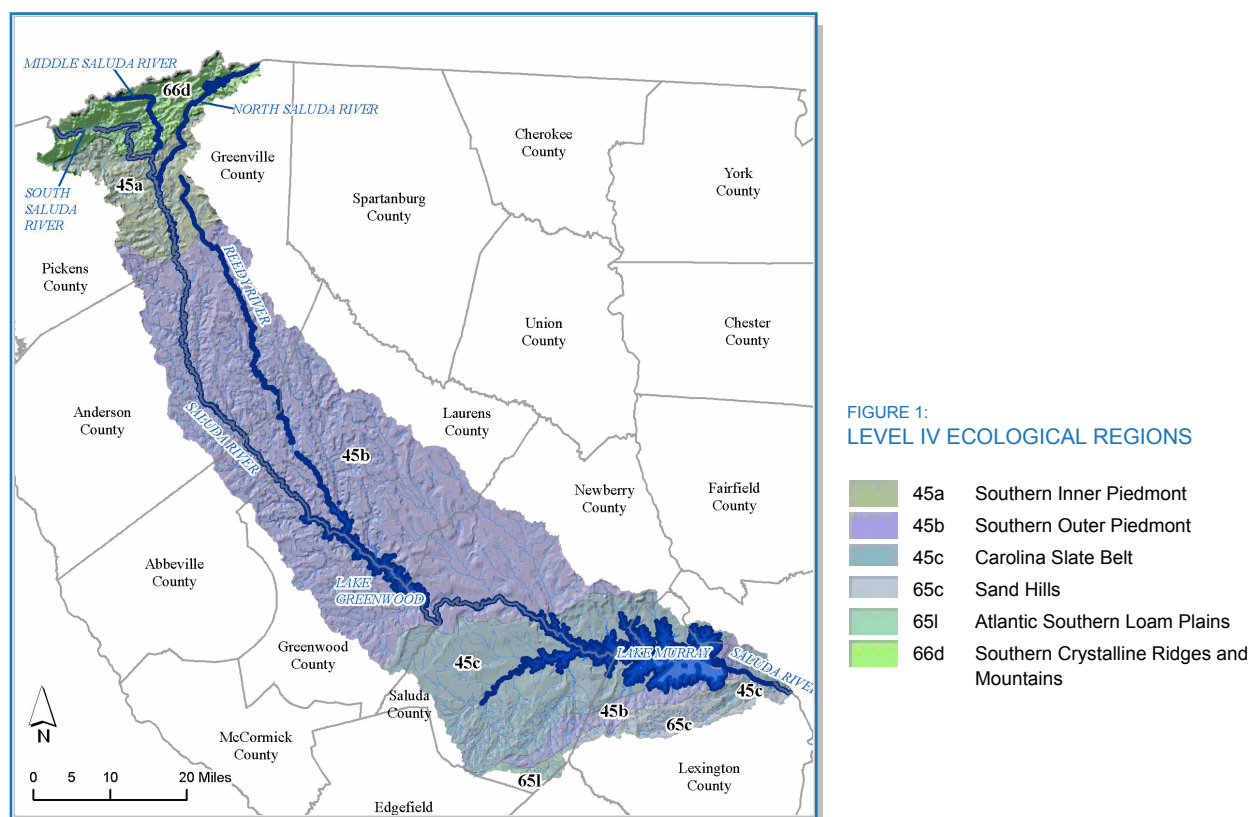


EXECUTIVE SUMMARY

Watershed Description

The Saluda River originates in the Blue Ridge Mountains of South Carolina and drains approximately 2,500 square miles (1.614 million acres) through the Piedmont. The North, Middle and South rivers converge northwest of the City of Greenville to form the Saluda River which then drains into Lake Greenwood. The Reedy River, whose headwaters begin within the city limits of Greenville, runs parallel and to the east of the Saluda River, joining the Saluda River in Lake Greenwood. The Saluda River, the Little Saluda River and the Bush River enter Lake Murray. The Saluda River exits Lake Murray and joins the Broad River at the City of Columbia to become the Congaree River.

The Saluda River subbasin lies in the Blue Ridge (66) and Piedmont (45) ecoregions (Figure 1). A brief description of the Level III ecoregions in this watershed is available in this document's appendix. A more detailed description of the Level III and Level IV Common Resource Areas (Ecological Regions) is available online (See Griffith *et al.* 2002 in References section.).



EXECUTIVE SUMMARY

Land Use/Land Cover

This is the most urbanized subbasin in the state. The major urban areas in the subbasin are Greenwood and Columbia; other urban clusters include the Mauldin/Simpsonville urban areas, Greenwood, Laurens and Newberry.

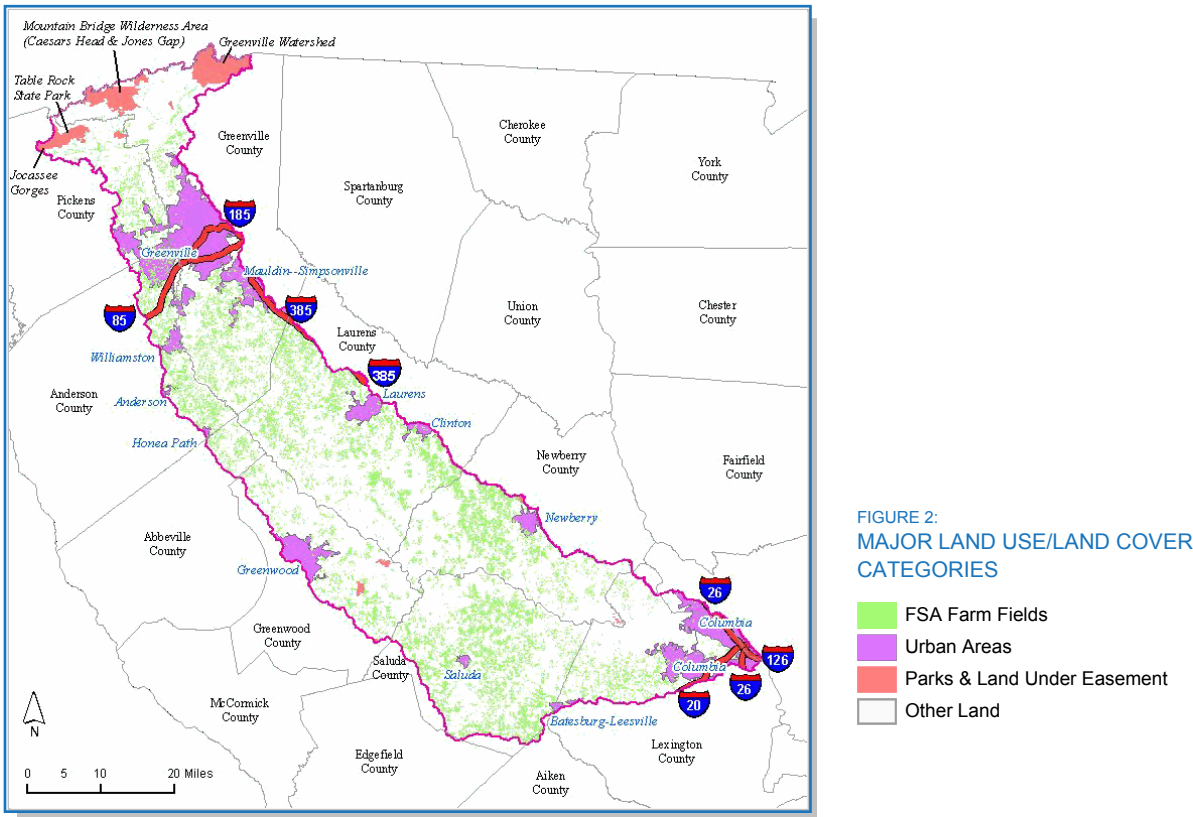


Table 1:
MAJOR LAND USE/LAND COVER CATEGORIES

	Acres	% of Watershed
Watershed (Total)	1,614,457	-
Urban Area	172,717	11%
Parks/Land Under Easement (not NRCS)	42,427	3%
Farm Service Agency Designated Farm Fields	277,939	17%

EXECUTIVE SUMMARY

Table 2:

AGRICULTURAL LAND USE: FSA ACREAGE AND ESTIMATED FARM FIELD USE FROM THE 2002 AG CENSUS

(NASS Whole County Data Used. Cropland includes: Field Crops, Orchards, and Specialty Crops.)

County	FSA Fields (Acres)	% Pasture (Estimated)	% Cropland (Estimated)	% Hayland (Estimated)
Abbeville	5,343	51%	15%	35%
Anderson	23,556	44%	23%	34%
Greenville	35,140	40%	32%	28%
Greenwood	17,745	49%	15%	36%
Laurens	59,667	43%	19%	38%
Lexington	16,942	23%	52%	25%
Newberry	39,963	28%	40%	32%
Pickens	11,072	52%	13%	35%
Saluda	67,384	39%	25%	36%

Summary of Resource Concerns

The following is a summary of resource concerns for the watershed. Each resource concern has a more detailed analysis provided in its corresponding section.

EXECUTIVE SUMMARY

Soils

Land capability limitations are dominated by erosion in this subbasin that consists of Blue Ridge, Piedmont, and Coastal Plain areas; highly erodible and potentially highly erodible soils comprise 87% of the subbasin and are the key resource concerns.

Water Quantity

Awaiting SCDNR's 2007 state water assessment.

Water Quality

This is a large and diverse subbasin with fecal coliform, biological (aquatic life), pH, dissolved oxygen and total phosphorus impairments. There are 17 TMDLs underway in the subbasin addressing fecal coliform (16 TMDL's) and phosphorus (one TMDL) impairments.

This is an EPA Priority watershed.

Plant Condition

This is a diverse subbasin; the most prominent crops in the subbasin include nursery stock, corn and sorghum for silage, oats, orchard crops (apples and peaches) and forage crops.

Fish, Wildlife, and Native Plants

According to SC DNR's "Comprehensive Wildlife Conservation Strategy: 2005 - 2010" (see SCDNR 2005 in References section), the following applies to this subbasin: Biologists have identified habitat protection as one of the most important actions to ensure the protection of South Carolina priority species. Loss and fragmentation of habitat have been identified as a major threat to many of the species listed as threatened and endangered in South Carolina.

Domestic Animals

Grazing animal populations are high. Confined livestock operations are concentrated mostly south of Laurens, SC, made up mostly of poultry (layers and broilers) and dairy.

Economic and Social Factors

Urban sprawl along the I85, I-385, I-20 and I-26 corridors between and around Greenville and Columbia will impact on multiple resource concerns in the subbasin.

EXECUTIVE SUMMARY

Progress on Conservation

Table 3:

A SUMMARY OF NRCS APPLIED CONSERVATION TREATMENTS (ACRES)

(See Appendix for NRCS Conservation Practices used for Conservation Treatment Categories.)

(Applied practice data is reported on a fiscal year basis commencing on October 1st)

Conservation Treatments	2004	2005	2006	Total
Buffers and Filter Strips	1	67	122	190
Conservation Tillage	3,184	909	1,063	5,156
Erosion Control	3,234	1,898	3,719	8,851
Irrigation Water Management	-	235	440	675
Nutrient Management	8,847	5,546	3,543	17,936
Pest Management	5,654	3,197	1,868	10,719
Prescribed Grazing	5,744	732	1,796	8,272
Trees and Shrubs	2,768	927	848	4,543
Wetlands	-	10	40	50
Wildlife Habitat	1,288	1,114	2,007	4,409

Table 4:

LANDS REMOVED FROM PRODUCTION BY FARM BILL PROGRAMS (WHOLE COUNTY DATA SHOWN)

County	Conservation Reserve Program (ac) 2005	Conservation Reserve Program (ac) 1986 - 2005	Grassland Reserve Program (ac) 2005	Farmland & Ranch Protection Program (ac) 2005	Wetland Reserve Program (ac) 2005
Abbeville	1,202	28,629	297	-	-
Anderson	6,382	170,526	-	-	183
Greenville	879	25,038	-	-	9
Greenwood	466	9,802	-	-	10
Laurens	3,892	98,349	-	-	60
Lexington	1,365	33,024	-	-	800
Newberry	1,660	44,019	-	-	-
Pickens	110	1,873	117	-	-
Saluda	4,003	82,820	100	-	46

EXECUTIVE SUMMARY

Table 5:

APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL)

(See SCDHEC 2007 (a) in Reference Section.) - SCDHEC Contact: Matt Carswell - (803) 898-3609

TMDL Document	Number of Stations	Parameter of Concern	Status	WQMS ID Standard Attained
Reedy River and Reservoirs	2	Phosphorus	Under Development	-
Broad Mouth Creek	3	Fecal Coliform	Completed & Approved	-
Brushy Creek	1	Fecal Coliform	Under Development	-
Bush River	2	Fecal Coliform	Approved & Implementing	-
Huff Creek	1	Fecal Coliform	Under Development	-
Langston Creek	1	Fecal Coliform	Under Development	-
Little River	6	Fecal Coliform	Completed & Approved	S-038, S-099
Little Saluda	6	Fecal Coliform	Completed & Approved	-
Lorick Branch	1	Fecal Coliform	Completed & Approved	-
Lower Saluda River	3	Fecal Coliform	Completed & Approved	S-149
Mill Creek	1	Fecal Coliform	Completed & Approved	-
Rabon Creek	4	Fecal Coliform	Completed & Approved	S-307
Rawls Creek	1	Fecal Coliform	Completed & Approved	-
Reedy River	8	Fecal Coliform	Under Development	-
Rocky Creek	1	Fecal Coliform	Under Development	-
Scott Creek	1	Fecal Coliform	Completed & Approved	-
Upper Saluda River	13	Fecal Coliform	Completed & Approved	S-087, S-252

Table 6:

OTHER PLANS, ASSESSMENTS, AND PROJECTS IN THE WATERSHED

Organization	Description	Contact	Telephone
SCDNR	Lower Saluda River Watershed Plan	Bill Marshall	803-734-9096
SCDNR	Reedy River Watershed Plan	Barry Beasley	803-734-9095
SCDNR	Lower Saluda Scenic River Project	Barry Beasley	803-734-9095
SCDNR	Middle Saluda Scenic River Project	Barry Beasley	803-734-9095
NRCS	Conservation Security Program Priority Watershed (2004)	Craig Ellis	803-253-3930
USGS	Santee National Water Quality Assessment (NAWQA) project	Celeste A. Journey	803-750-6141
SCDHEC	Watershed Water Quality Assessment: Saluda River Basin (2004)	Roger Hall	803-898-4142

RESOURCE CONCERNS

Other Watershed Considerations

The Jocassee Gorges Wildlife and Recreation Management Area and the Caesars Head/Jones Gap Mountain Bridge Wilderness Area are located in the Blue Ridge Mountains in the north of the watershed.

About five miles of the Middle Saluda and its major tributary, Coldspring Branch, are designated a scenic river and are protected by a 600-foot wide scenic corridor established through an agreement with the South Carolina Department of Parks, Recreation and Tourism. The protected portion extends from U.S. Highway 276 to a point about one mile upstream of the abandoned Cleveland Fish Hatchery in northern Greenville County and completely within Jones Gap State Park.

A 10-mile segment of the Saluda River beginning one mile below Lake Murray Dam to its confluence with the Broad River is designated a State Scenic River. The Lower Saluda Scenic River is recognized as an outstanding recreational resource. The tailrace waters from Lake Murray reservoir provide a cold-water fishery and varying water levels for recreational boating. Trout and striped bass fishing as well as whitewater (class II to V rapids) and flatwater paddling are very popular on this piedmont river (South Carolina Department of Natural Resources, Lower Saluda Scenic River Plan: Overview).

RESOURCE CONCERNS

Soils

The Saluda subbasin is the only subbasin in South Carolina that contains all three major land resource areas: the Coastal Plain (Sand Hills and Atlantic Southern Loam Plains) which makes up the southern 10% of the subbasin, the Piedmont region (Carolina Slate Belt and Southern Inner/Outer Piedmont) which comprises the majority of the subbasin at about 80%, and the Blue Ridge region (Southern Crystalline Ridges and Mountains) which makes up the remaining 10% of the subbasin in the upper part along the North Carolina border. A majority (82%) of land in this subbasin has limitations due to erosion (Table 7). Most of the erosion is associated with sloping areas on the Piedmont and Blue Ridge uplands (Figure 4, Table 9). Soils that occur in the Coastal Plain region do not have major erosion concerns (Figure 4). Low soil organic matter in the highly erodible soils is a soil health concern. Droughtiness is a major concern in about 4% of the area (Table 7) and occurs mostly in the sandy soils of the Sand Hills (Figure 1). Low soil organic matter in these sandy soils is a soil health concern. Hydric soils and wetness are not major resource concerns in this subbasin with 93% of the land classified as not hydric (Figure 5, Tables 7 and 10). Almost all of the hydric and potentially hydric soils occur in riparian areas. Almost 60% of the land in the Saluda subbasin is either prime farmland (35%) or statewide important farmland (23%) and mostly occurs in the Piedmont and Coastal Plains regions (Figure 3, Table 8).

Table 7:

LAND CAPABILITY CLASSES (See NRCS 2007 [a] and [b] in References section.)

Percentages are based on the whole watershed (1,614,457 ac).

Land Capability Class 1	Acres		Percent			
1 - Slight limitations	2,909		0%			
% Land by Subclass Limitation						
	Erosion (e)		Wetness(w)		Droughtiness (s)	
Land Capability Classes 2-8	Acres	Percent	Acres	Percent	Acres	Percent
2 - Moderate limitations	454,481	28%	27,897	2%	9,800	1%
3 - Severe limitations	341,179	21%	59,943	4%	14,209	1%
4 - Very severe limitations	206,300	13%	11,041	1%	6,127	0%
5 - No erosion hazard, but other limitations	-	-	4,827	0%	-	-
6 - Severe limitations; unsuitable for cultivation; limited to pasture, range, forest	128,675	8%	322	0%	2,094	0%
7 - Very severe limitations; unsuitable for cultivation; limited to grazing; forest, wildlife habitat	192,203	12%	3,014	0%	8,767	1%
8 - Miscellaneous areas; limited to recreation, wildlife habitat, water supply	42	0%	-	-	21,438	1%

RESOURCE CONCERNS

Prime Farmland



FIGURE 3:
PRIME FARMLAND
(See NRCS 2007 [a] and [b] in
References section.)

Table 8:
PRIME FARMLAND

Prime Farmland Categories	Acres	Percent of Land
All areas are prime farmland	479,120	30%
Farmland of statewide importance	366,157	23%
Not prime farmland	689,593	43%
Prime farmland if drained	0	0%
Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	53,562	3%
Prime farmland if irrigated	0	0%
Prime farmland if irrigated and drained	0	0%
Prime farmland if protected from flooding or not frequently flooded during the growing season	25,924	2%

RESOURCE CONCERNS

Highly Erodible Land

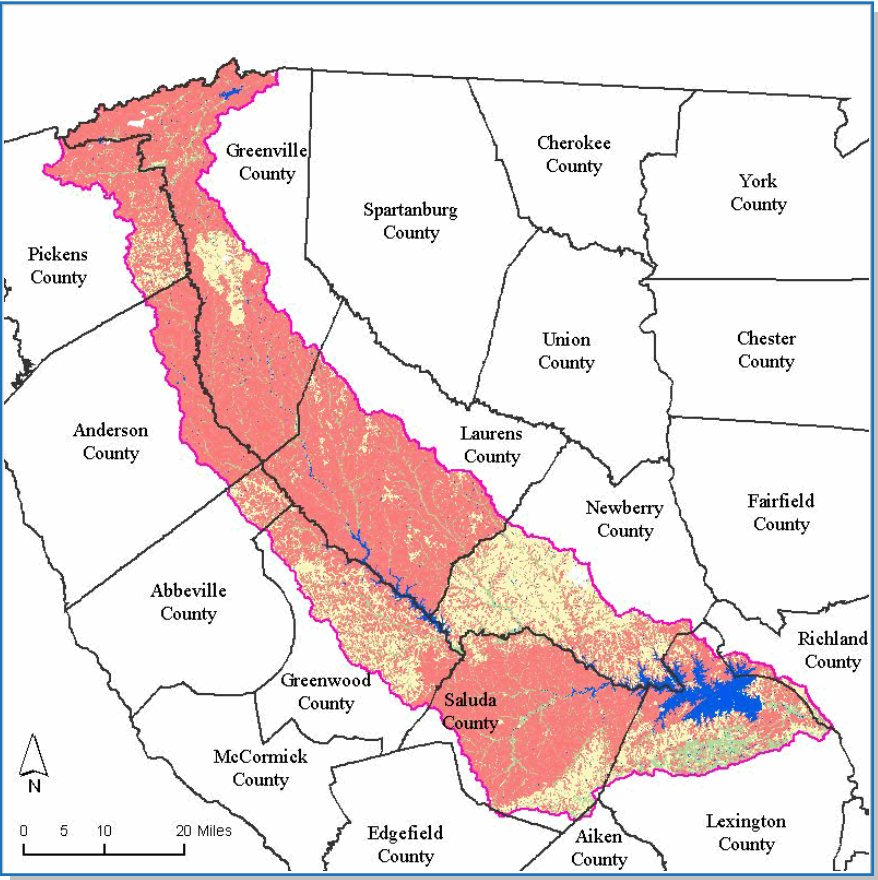


FIGURE 4:
HIGHLY ERODIBLE LAND
(See NRCS 2007 [a] and [b] in
References section.)

Table 9:
HIGHLY ERODIBLE LAND

Highly Erodible Land Categories		Acres	Percent of Watershed
	Highly erodible land	1,090,547	68%
	Not highly erodible land	142,866	9%
	Potentially highly erodible land	307,492	19%

RESOURCE CONCERNS

Hydric Soils



FIGURE 5:
HYDRIC SOILS
(See NRCS 2007 [a] and [b] in
References section.)

Table 10:
HYDRIC SOILS

Hydric Soils Categories	Acres	Percent of Watershed
All Hydric	15,558	1%
Not Hydric	1,503,578	93%
Partially Hydric	95,222	6%

RESOURCE CONCERNS

Water Quantity

Irrigated water usage is typically low but varies across this large subbasin with Lexington County using the most water for irrigation (Table 12), presumably because of its proximity to Lake Murray. Another agricultural use for water is for livestock (confined and grazing) watering. While this is less intensive than for irrigation, it is typically more widespread. The subbasin is almost entirely in the crystalline Piedmont, therefore groundwater sources are localized and wells tend to be lower yielding than those on the coastal plains.



FIGURE 6:
WATERSHED RELATIVE TO CAPACITY
USE AREAS, NOTICE OF INTENT
AREAS, AND CONES OF DEPRESSION

Table 11:
CAPACITY USE, NOTICE OF INTENT, AND CONES OF DEPRESSION AREA IN WATERSHED
(See SCDHEC 2007 [c] and SCDNR 2004 in References Section.)

Area	Percent of Watershed
% Watershed in Cone of Depression and Capacity Use (CU) Area	0%
% Watershed in SCDHEC Capacity Use (CU) Area	0%
% Watershed in SCDHEC Notice of Intent (NOI) Area	4%

RESOURCE CONCERNS

Water Quantity Cont.

Table 12:
INDICATORS OF IRRIGATION WATER USAGE (WHOLE COUNTY DATA ARE USED)
(See NASS 2002 and SCDNR 2004 in References Section)

County	Total Irrigated Water Used MGD	Total NASS Cropland (ac)	Cropland Under Irrigation (ac)	Percent Cropland Under Irrigation	Water Use Gal/Ac/Day for Irrigated Land
Abbeville	1.08	35,086	625	1.8	1,728
Anderson	1.61	87,393	996	1.1	1,616
Greenville	5.11	38,394	1,760	4.6	2,903
Greenwood	0.09	25,075	179	0.7	503
Laurens	3.17	58,899	525	0.9	6,038
Lexington	18.30	48,740	7,262	14.9	2,520
Newberry	0.87	42,995	1,087	2.5	800
Pickens	0.71	22,577	847	3.8	838
Saluda	6.07	45,374	3,504	7.7	1,732

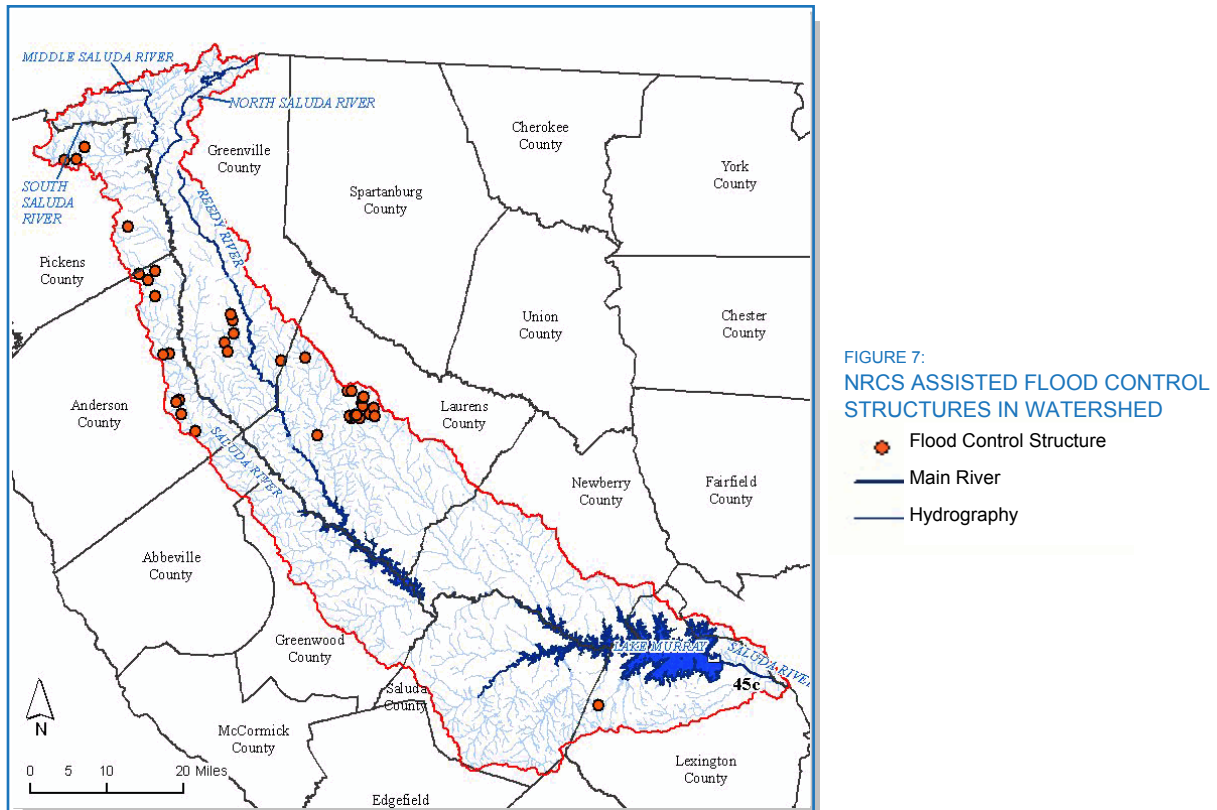


Table 13:
NRCS IMPLEMENTED FLOOD CONTROL STRUCTURES

Number of Structures (in Watershed)	Maximum Storage (AcFt)	Number of Structures by Hazard Class			
		High	Low	Significant	Unclassified
37	66,543	1	28	8	0

RESOURCE CONCERNS

Water Quality

The number of surface water quality impairments is shown in Table 15 resulting in a "303(d)" listing of that Water Quality Monitoring Site (WQMS). Table 5 indicates what progress has been made to address surface water quality through the Total Maximum Daily Load (TMDL) process. Once a TMDL plan is approved, the WQMS is removed from the 303(d) list even though the standard may not have been attained. Note that standards for total nitrogen, total phosphorus, and chlorophyll-a only exist for lakes; therefore, no stream in the state can be listed for any of these three parameters.

This is a large and diverse subbasin; the fecal coliform concern will be addressed through ongoing TMDLs (Table 5). Other major water quality concerns are impairments affecting aquatic life, including biological (aquatic life), pH, dissolved oxygen and total phosphorus (Table 15).

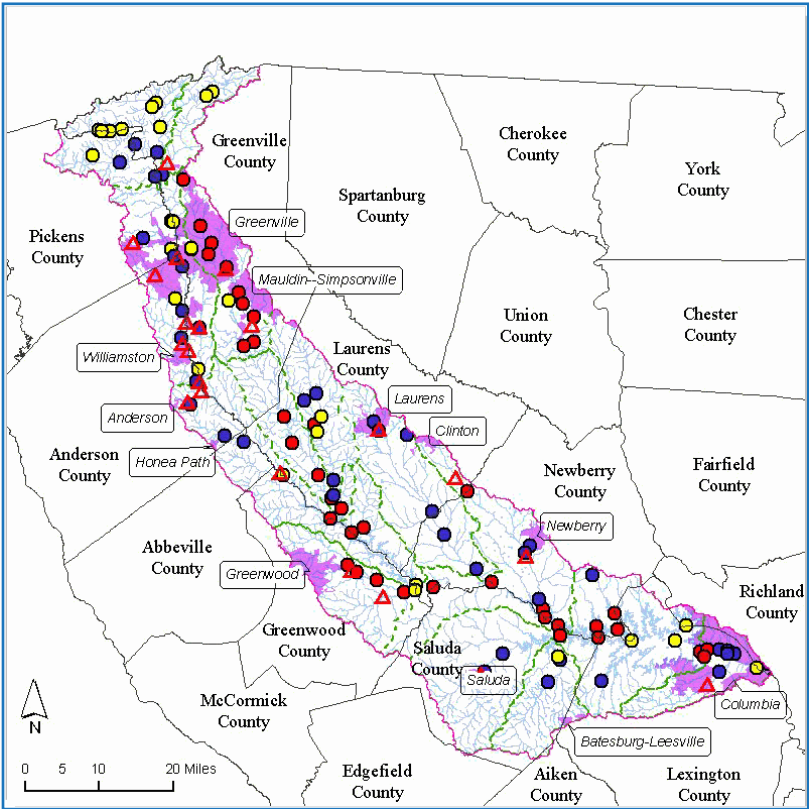


Table 14:
WATER QUALITY MONITORING
SITES

Permanent Water Quality Monitoring Sites (WQMS)	104
Random Water Quality Monitoring Sites (WQMS)	43

FIGURE 8:
PERMANENT WATER QUALITY
MONITORING SITES

- WQMS (No Impairment)
- WQMS (303d Listed)
- WQMS (Approved TMDL)
- Waste Water Treatment Plant
- Hydrography
- Hydrologic Unit Code 10 Boundary

RESOURCE CONCERNS

Table 15:
NUMBER OF MONITORING SITES SHOWING SURFACE WATER QUALITY IMPAIRMENTS
(See SCDHEC 2006 in References for the state 303(d) list.)

Recreational Use Standard

Parameter	Impairments
Fecal Coliform	18

Fish Tissue Standard

Parameter	Impairments
Mercury	2
PCB's	0

Shellfish Harvest Standard

Parameter	Impairments
Fecal Coliform	NA

Aquatic Life Use Standard

Parameter	Impairments
Biological	22
Chlorophyll A	1
Chromium	1
Copper	6

Parameter	Impairments
Dissolved Oxygen	10
Ammonia Nitrogen	0
Nickel	0
Total Nitrogen	1

Parameter	Impairments
Total Phosphorus	6
pH	20
Turbidity	1
Zinc	1

RESOURCE CONCERNS

Plant Condition

Plants of Economic Importance

Plants of economic importance are shown in Table 16. The crops shown in this table are from NASS data where the top five crops, by acres, in each county are displayed. The timber statistics (see Clemson Extension Forest Services 2003 in References) indicate the relative importance of the timber industry within the state and the importance of the timber industry compared to agriculture within the county.

This is a diverse subbasin; the most prominent crops in the subbasin include nursery stock, corn and sorghum for silage, oats, orchard crops (apples and peaches) and forage crops.

Native Plant Species

According to SC DNR's "Comprehensive Wildlife Conservation Strategy: 2005 - 2010" (see SCDNR 2005 in References section), the following applies to this subbasin: Appalachian oak and oak pine forest are important to wildlife as the most extensive cover type in the Blue Ridge ecoregion. Scattered throughout the ecoregion are wet places embedded within primary habitat types such as cold water streams, waterfalls, waterslides and bogs.

The Piedmont ecoregion plant community historically consisted of oak and hickory-dominated forest with associated tree species varying by slope and soil moisture. This was the primary potential vegetation type in the Piedmont. Due to land disturbances however, today the majority of these sites exist mostly in closed canopy pine-dominated forests.

In the sandhills, plants are a complex of xeric pine and pine-hardwood forest types adapted to sandy soils, typically found fluvial sand ridges. Historically, a canopy of longleaf pine and a sub canopy of turkey oak prevail, this was interspersed with scrub oak species and scrub-shrub cover. Management that includes burning encourages the development of longleaf pine-wiregrass communities.

Table 16:

WHOLE COUNTY DATA OF PLANTS OF ECONOMIC IMPORTANCE IN SUBBASIN

(See: USDA NASS 2002 & Clemson University Forest Extension Services 2003 in References section)

Plant	Counties
All Vegetables harvested	Greenville, Laurens, Pickens, Lexington
All Wheat for grain	Anderson, Newberry, Saluda, Laurens, Greenwood, Abbeville
Apples	Greenville
Collards	Lexington
Corn for grain	Saluda, Lexington, Pickens
Corn for silage	Saluda, Anderson, Newberry
Forage - land used for all hay and haylage, grass silage, and greenchop	Anderson, Laurens, Greenville, Greenwood, Abbeville, Lexington, Saluda, Pickens, Newberry
Nursery stock	Pickens, Abbeville, Greenville
Oats	Anderson, Greenwood, Abbeville
Peaches	Saluda
Pecans	Greenwood
Short-rotation woody crops	Greenville, Laurens, Greenwood, Pickens
Sorghum for silage	Laurens, Newberry
Soybeans	Newberry, Lexington, Anderson
Timber Revenues Exceed Ag. Revenues	Abbeville, Greenwood

RESOURCE CONCERNS

Table 17:

FEDERALLY LISTED THREATENED AND ENDANGERED PLANT SPECIES IN WATERSHED

(See USFW 2006 in References section.)

Common Name	Latin Name	Status
Relict trillium	<i>Trillium reliquum</i>	Endangered
Black-spored quillwort	<i>Isoetes melanospora</i>	Endangered
Bunched arrowhead	<i>Sagittaria fasciculata</i>	Endangered
Canby's dropwort	<i>Oxypolis canbyi</i>	Endangered
Dwarf-flowered heartleaf	<i>Hexastylis naniflora</i>	Threatened
Georgia aster	<i>Aster georganus</i>	Supported Proposals to List
Little amphianthus	<i>Amphianthus pusillus</i>	Threatened
Miccosukee gooseberry	<i>Ribes echinellum</i>	Threatened
Mountain sweet pitcher-plant	<i>Sarracenia rubra ssp. jonesii</i>	Endangered
Rock gnome lichen	<i>Gymnoderma lineare</i>	Endangered
Rough-leaved loosestrife	<i>Lysimachia asperulaefolia</i>	Endangered
Schweinitz's sunflower	<i>Helianthus schweinitzii</i>	Endangered
Small whorled pogonia	<i>Isotria medeoloides</i>	Threatened
Smooth coneflower	<i>Echinacea laevigata</i>	Endangered
Swamp-pink	<i>Helonias bullata</i>	Threatened
White fringeless orchid	<i>Platanthera integrilabia</i>	Supported Proposals to List
White irisette	<i>Sisyrinchium dichotomum</i>	Endangered
Piedmont bishop-weed	<i>Ptilimnium nodosum</i>	Endangered

ECONOMIC & SOCIAL FACTORS

Fish and Wildlife

For additional information, the SC Department of Natural Resources has completed a "Comprehensive Wildlife Conservation Strategy: 2005 - 2010" (see SCDNR 2005 in References section).

In 2005, mercury advisories were issued for 57 water bodies in South Carolina. Higher concentrations of mercury in fish tissue tend to occur in the Coastal Plain of South Carolina with relatively lower concentrations (and therefore fewer advisories) in the Piedmont. For more details on fish advisories, please refer to the SCDHEC fish advisory website at:

<http://www.scdhec.gov/environment/water/fish/>

Table 18:

FEDERALLY LISTED THREATENED AND ENDANGERED WILDLIFE SPECIES IN WATERSHED

(See USFW 2006 in References section.)

Common Name	Latin Name	Status
Bog turtle	<i>Clemmys muhlenbergii</i>	Threatened, Similarity of Appearance
Red-cockaded woodpecker	<i>Picoides borealis</i>	Endangered
Wood stork	<i>Mycteria americana</i>	Endangered

Table 19:

FEDERALLY LISTED THREATENED AND ENDANGERED AQUATIC SPECIES IN WATERSHED

(See USFW 2006 in References section.)

Common Name	Latin Name	Status
Shortnose sturgeon	<i>Acipenser brevirostrum</i>	Endangered
Carolina heelsplitter	<i>Lasmigona decorata</i>	Endangered
Carolina heelsplitter	<i>Lasmigona decorata</i>	Endangered, Critical Habitat

* Weighted averages are estimated based on agricultural land use area.

ECONOMIC & SOCIAL FACTORS

Domestic Animals

Grazing animal populations in the subbasin are high with most of the top-ranked beef cattle producing counties overlapping the subbasin (Table 20). Confined livestock in the subbasin is concentrated mostly south of Laurens, SC (Figure 9). Poultry operations contribute the highest live weight (Table 21); Newberry and Saluda Counties rank 1 and 3 for layer production while Lexington and Saluda Counties rank 1 and 4 in for broiler production. Dairy operations feature prominently in the subbasin (Figure 9, Table 21) in Newberry, Laurens and Greenville Counties which rank 1, 8 and 12 in the state for dairy production.

Table 20:

WHOLE COUNTY GRAZING ANIMAL POPULATION DATA FROM 2002 AG. CENSUS

(See NASS 2002 in References section. "D" in table = "Cannot be disclosed".)

County	Cows/Calves	Grazing/Forage (ac)	County Rank in State
Abbeville	19,123	17,796	3
Anderson	40,505	38,017	1
Greenville	11,077	15,375	14
Greenwood	13,667	12,343	12
Laurens	24,540	25,428	4
Lexington	9,804	11,221	17
Newberry	24,137	12,175	6
Pickens	9,090	11,722	22
Saluda	26,667	17,782	2

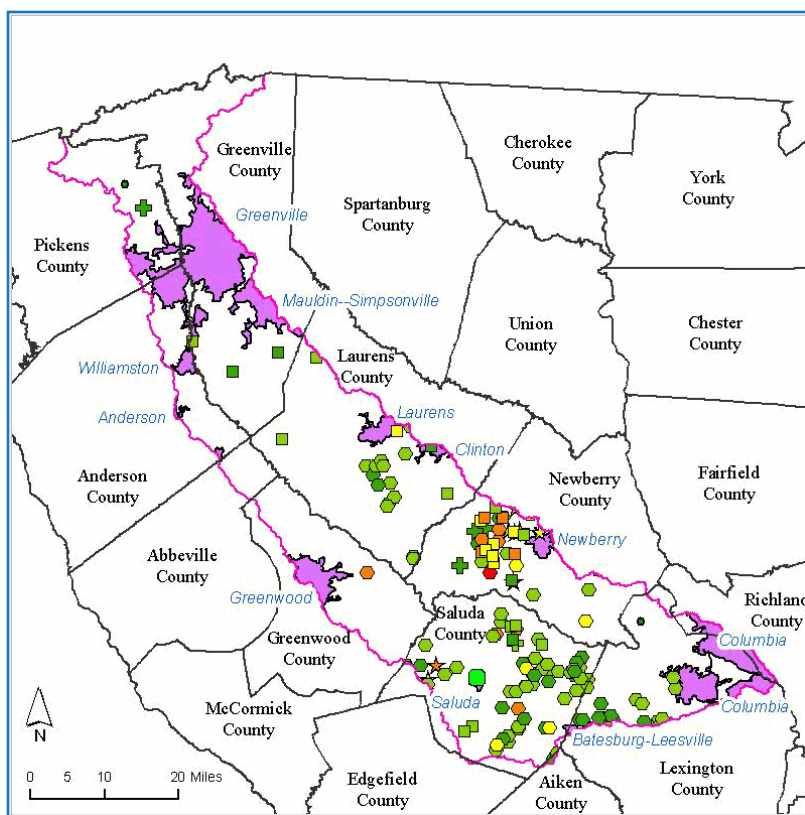


Table 21:

CONFINED ANIMAL POPULATION [As given by SCDHEC] (Au = Animal Unit = 1,000 lbs)

Beef Live Weight (Au)	-
Dairy Live Weight (Au)	10,857
Horse Live Weight (Au)	52
Poultry Live Weight (Au)	28,118
Swine Live Weight (Au)	930
Turkey Live Weight (Au)	5,916

FIGURE 9:

TYPE AND SIZE OF CONFINED ANIMAL OPERATION

Permit Design Count (Live Weight AU)

0 - 163
164-372
373 - 680
681 - 1360
1361 - 7076

* Beef
■ Dairy
▲ Other
● Poultry
⊕ Swine
★ Turkey

REFERENCES

The number of full-time farmers is similar to the state average of 47% and farm sizes are *smaller* than the state average of 197 ac (Table 22), suggesting average to below-average levels of participation in conservation programs. Farm sizes have decreased by an estimated 10% between 1997 and 2002, lower than the state average for the same period. Loss of cropland between 1997 and 2002 is estimated at 10%, above the SC average of 8%, suggesting some urban encroachment from the Greenville, Spartanburg and Columbia areas and along the I-26 and I-85 corridors.

The relative importance of crop and livestock commodity groups in the watershed is shown in Tables 24 and 25; a *qualitative* indication of the relative importance of timber is provided on Table 16.

For more economic and farm information from the 2002 Agricultural Census, more detailed reports for all South Carolina counties can be found at:

<http://www.nass.usda.gov/census/census02/profiles/sc/index.htm>

Table 22:

2002 FARM CENSUS DATA (WHOLE COUNTY DATA SHOWN) (SC average farm size = 197 ac)

County	Total Number of Farms	% Full Time Farmers	% Farms > 180 (ac)	Average Farm Size (ac)
Abbeville	538	47%	26%	177
Anderson	1,644	46%	15%	108
Greenville	909	43%	12%	96
Greenwood	501	46%	20%	161
Laurens	931	47%	24%	153
Lexington	1,086	44%	12%	95
Newberry	633	45%	26%	164
Pickens	622	37%	9%	75
Saluda	574	54%	25%	186
Weighted Avg*	802	46%	20%	143

Table 23:

2002 FARM CENSUS ECONOMIC DATA (WHOLE COUNTY DATA SHOWN) (Results in \$1,000)

County	Market Value of Ag Products Sold	Market Value of Crops Sold	Market Value of Livestock, Poultry, and Their Products	Farms with sales < \$10,000
Abbeville	11,155	2,849	8,306	433
Anderson	37,046	14,916	22,130	1,352
Greenville	18,154	14,873	3,281	794
Greenwood	5,719	1,211	4,508	-
Laurens	15,648	2,069	13,579	756
Lexington	95,712	34,602	61,110	861
Newberry	56,885	-	-	504
Pickens	6,675	5,220	1,455	557
Saluda	64,038	5,511	58,527	401
Weighted Avg*	38,519	7,298	23,256	620



REFERENCES

Table 24:

VALUE OF CROP COMMODITY GROUPS - COUNTY RANK IN STATE

(See NASS 2002 in References section. "D" in table = "Cannot be disclosed".)

County	Value of All Crops	Grains & Oilseeds	Tobacco	All Cotton	Vegetables & Melons	Fruits, Nuts, & Berries	Nursery, Etc.	Christmas Trees & Woody Crops	Hay & other Crops
Abbeville	36	37	-	(D)	43	34	(D)	30	(D)
Anderson	17	26	-	30	20	16	6	7	3
Greenville	18	34	-	-	8	5	7	14	17
Greenwood	43	(D)	-	-	32	13	33	(D)	34
Laurens	39	40	-	-	23	17	31	21	9
Lexington	4	16	16	20	1	12	13	9	6
Newberry	(D)	22	-	(D)	38	26	19	10	25
Pickens	31	43	(D)	-	(D)	27	14	(D)	20
Saluda	30	33	-	(D)	(D)	3	35	12	23

Table 25:

VALUE OF LIVESTOCK AND POULTRY COMMODITY GROUPS - RANK IN STATE

(See NASS 2002 in References section. "D" in table = "Cannot be disclosed".)

County	Value of Livestock, poultry	Poultry, Eggs	Cattle & Calves	Milk & Dairy	Hogs & Pigs	Sheep & Goats	Horses, etc.
Abbeville	25	(D)	3	(D)	32	9	34
Anderson	15	19	1	5	18	1	3
Greenville	33	40	14	12	27	6	6
Greenwood	30	28	12	21	(D)	21	29
Laurens	21	22	4	8	35	24	14
Lexington	2	2	17	17	24	2	9
Newberry	(D)	7	6	1	(D)	(D)	43
Pickens	40	43	22	(D)	(D)	8	16
Saluda	3	4	2	6	(D)	25	(D)

APPENDIX

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APPENDIX

Level III Common Resource Area (Ecological Region) Descriptions

Piedmont (45)

The Piedmont is an erosional terrain with some hills; the soils are generally finer-textured than those found in coastal plain regions with less sand and more clay. Piedmont soils are moderately to severely eroded; most of this region is now in planted pine or has reverted to successional pine and hardwood woodlands, with some pasture; spreading urban- and suburbanization is apparent. The Piedmont of South Carolina is divided into five level IV ecoregions: Southern Inner Piedmont (45a), Southern Outer Piedmont (45b), Carolina Slate Belt (45c), Triassic Basins (45g) and Kings Mountain (45i).

Southeastern Plains (65)

The Southeastern Plains are irregular with broad interstream areas have a mosaic of cropland, pasture, woodland, and forest. In the past centuries, human activities (logging, agriculture and fire suppression) removed almost all of the longleaf pine forests. Elevations and relief are greater than in the Southern Coastal Plain (75), but generally less than in much of the Piedmont (45). The ecoregion has been divided into three level IV ecoregions within South Carolina: Sand Hills (65c), Atlantic Southern Loam Plains (65l), and Southeastern Floodplains and Low Terraces (65p). Note: The Atlantic Southern Loam Plains (65l) is a major agricultural zone, with deep, well-drained soils, and is characterized by high percentages of cropland.

Blue Ridge (66)

The Blue Ridge is part of one of the richest temperate broadleaf forests in the world, with a high diversity of flora and fauna. Elevations generally range from 900-3000 feet, with Sassafras Mountain, the highest point in South Carolina, reaching near 3560 feet. The ecoregion in South Carolina falls within one level IV ecoregion: Southern Crystalline Ridges and Mountains (66d).

NRCS Conservation Practices used for Conservation Treatment Categories in Table 3

Report Category	Practice Codes
Buffer and Filter Strips	332, 391, 393, 412
Conservation Tillage	324, 329, 329A, 329B, 344, 484
Erosion Control	327, 328, 330, 340, 342, 561, 585, 586
Irrigation Water Management	441, 449
Nutrient Management	590
Pest Management	595
Prescribed Grazing	528, 528A
Trees and Shrubs	490, 612, 655, 656, 66
Wetlands	657, 658, 659
Wildlife Habitat	644, 645

APPENDIX

Hydrologic Unit Numbering System

In 2005, the NRCS in cooperation with the U.S. Geological Survey, the South Carolina Department of Health and Environmental Control, and the U.S. Forest Service updated the South Carolina part of the USGS standard hydrologic unit map series. The report, "Development of a 10- and 12- Digit Hydrologic Unit Code Numbering System for South Carolina, 2005", describes and defines those efforts. The following is from the Abstract contained in that report: "A hydrologic unit map showing the subbasins, watersheds, and subwatersheds of South Carolina was developed to represent 8-, 10-, and 12-digit hydrologic unit codes, respectively. The 10- and 12-digit hydrologic unit codes replace the 11- and 14-digit hydrologic unit codes developed in a previous investigation. Additionally, substantial changes were made to the 8-digit subbasins in the South Carolina Coastal Plain. These modifications include the creation of four new subbasins and the renumbering of existing subbasins." The report may be obtained at http://www.sc.nrcs.usda.gov/technical/HUC_report.pdf. See Table 2 in the report for a cross-reference of old to new 8-digit HUC.

This subbasin profile uses the new HUC 8 numbering system with its modified and newly created subbasins. The NRCS reports implemented practices by 8-digit Hydrologic Unit Code. All NRCS reported Conservation Practices were reported using the older numbering system. 2005 and 2006 data were converted to the new HUC 8 numbering system through the Latitude and Longitude data reported with the applied practice. The use of these differing numbering systems has resulted in some NRCS implemented practices being credited in this report to an 8-digit HUC as reported by the NRCS but not correctly credited in the new numbering system. Likewise, the newly created 8-digit HUC will not be credited with the 2004 applied practices.